Complete Summary

GUIDELINE TITLE

United Kingdom national guideline on the management of sexually acquired reactive arthritis 2008.

BIBLIOGRAPHIC SOURCE(S)

Clinical Effectiveness Group (CEG). United Kingdom national guideline on the management of sexually acquired reactive arthritis 2008. London (UK): British Association for Sexual Health and HIV (BASHH); 2008. 31 p. [121 references]

GUIDELINE STATUS

This is the current release of the guideline.

This guideline updates a previous version: Association for Genitourinary Medicine (AGUM), Medical Society for the Study of Venereal Disease (MSSVD). 2002 national guideline on the management of sexually acquired reactive arthritis. London: Association for Genitourinary Medicine (AGUM), Medical Society for the Study of Venereal Disease (MSSVD); 2002. Various p.

** REGULATORY ALERT **

FDA WARNING/REGULATORY ALERT

Note from the National Guideline Clearinghouse (NGC): This guideline references a drug(s) for which important revised regulatory and/or warning information has been released.

- July 08, 2008, Fluoroquinolones (ciprofloxacin, norfloxacin, ofloxacin, levofloxacin, moxifloxacin, gemifloxacin): A BOXED WARNING and Medication Guide are to be added to the prescribing information to strengthen existing warnings about the increased risk of developing tendinitis and tendon rupture in patients taking fluoroquinolones for systemic use.

COMPLETE SUMMARY CONTENT

SCOPE

DISEASE/CONDITION(S)

Sexually acquired reactive arthritis (SARA) (Reiter's syndrome, spondyloarthropathy, infectious arthritis)

GUIDELINE CATEGORY

Diagnosis
Evaluation
Management
Screening
Treatment

CLINICAL SPECIALTY

Family Practice
Infectious Diseases
Internal Medicine
Obstetrics and Gynecology
Ophthalmology
Rheumatology
Urology

INTENDED USERS

Advanced Practice Nurses
Nurses
Pharmacists
Physicians
Public Health Departments

GUIDELINE OBJECTIVE(S)

- To offer recommendations on the diagnostic tests, treatment regimens, and health promotion principles needed for the effective management of sexually acquired reactive arthritis
- To reduce the number of sexually transmitted infections (STIs) and the complications that can arise in people either presenting with signs and symptoms of an STI, or undergoing investigation for possible infection, or with suspected reactive arthritis (ReA)

TARGET POPULATION

People aged 16 years or older presenting to health care professionals, working in departments offering level 3 care in sexually transmitted infection (STI) management within the United Kingdom

Note: The principles of the recommendations should be adopted across all levels (levels 1 and 2 may need to develop, where appropriate, local care pathways).

INTERVENTIONS AND PRACTICES CONSIDERED

Assessment/Diagnosis

1. Assessment of clinical features
2. In men, a gram-stained urethral smear
3. Identification of genital pathogens, particularly *Chlamydia trachomatis* or *Neisseria gonorrhoeae*.
4. Investigation of specificity and activity of arthritis

Management/Treatment

1. General advice and patient education
2. Further investigation
    - Full screening for sexually transmitted infections, including human immunodeficiency virus (HIV)
    - Acute phase response: erythrocyte sedimentation rate (ESR) *or* C-reactive protein (CRP) *or* plasma viscosity (PLV)
    - Full blood count (FBC)
    - Urinalysis
    - Additional investigations as suggested following appropriate referral
3. Liaison with and/or referral by genito-urinary medicine specialists to other specialists for all patients with significant involvement of extra-genital systems
4. Treatment of constitutional symptoms: rest, non-steroidal anti-inflammatory drugs (NSAIDs)
5. Antimicrobial therapy for any genital infection identified
6. First line arthritis therapy
    - Rest with the restriction of physical activity
    - Physical therapy with or without cold pads
    - NSAIDs with or without gastroprotective agents
    - Intra-articular corticosteroid injections
7. Second line arthritis therapy as above plus:
    - Systemic corticosteroids with consideration for anti-osteoporosis prophylaxis
    - Sulphasalazine
    - Methotrexate plus folic acid
    - Azathioprine
    - Gold salts and D-penicillamine
    - Biological agents: tumour necrosis factor (TNF) alpha blockers (infliximab, etanercept, adalimumab)
    - Short course antibiotic therapy for the treatment of concomitant uro-genital infection
    - Longer course antibiotics: lymecycline, ciprofloxacin, azithromycin, doxycycline

- Combination antimicrobial therapy: doxycycline plus rifampicin, ofloxacin plus roxithromycin)
- Medical synovectomy (yttrium-90, osmic acid, samarium-153, rhenium-186)
- Surgery (exceptionally): synovectomy and arthroplasty

8. Enthesitis therapy
    - Rest
    - Physiotherapy and ultrasound
    - Orthotics with insoles, cushioning, heel supports
    - NSAIDs
    - Local corticosteroid injection
    - Radiotherapy (exceptionally)
    - Surgery (exceptionally)
    - TNF blockers
9. Treatment of mucous membrane and skin lesions related to arthritis
    - No treatment for mild lesions
    - Keratinolytic agents: topical salicylate or corticosteroid preparations
    - Vitamin D3 analogs: calcitriol ointment, calcipotriol cream/ointment
    - Methotrexate
    - Retinoids: acitretin
    - TNF blockers
10. Management of eye lesions related to arthritis
    - Management with ophthalmological advice
    - Slit lamp assessment to diagnose uveitis
    - Therapy for uveitis: corticosteroid eye drops, oral corticosteroids, mydriatics; TNF blockers (limited information)
11. Management of post-inflammatory pain and fatigue
    - Explanation and patience
    - Low dose tricyclic drugs: amitriptyline
12. Advice on prophylaxis (safe sex practice, food hygiene)
13. Management of pregnant and breastfeeding women
14. Sexual partner notification, treatment, and contact tracing, as appropriate
15. Follow-up

MAJOR OUTCOMES CONSIDERED

- Incidence of sexually-transmitted infections
- Incidence of sexually acquired reactive arthritis
- Rate of hospital readmission
- Duration to full recovery
- Rates of short-term and long-term disability
- Rate of erosive joint damage
- Rates of joint and/or extra-articular recurrences
- Adverse effects of treatment

METHODOLOGY

METHODS USED TO COLLECT/SELECT EVIDENCE

Hand-searches of Published Literature (Primary Sources)
Hand-searches of Published Literature (Secondary Sources)
Searches of Electronic Databases

DESCRIPTION OF METHODS USED TO COLLECT/SELECT THE EVIDENCE

An extensive literature review was performed using OVID and MEDLINE searches from 1966 to October 2007 using the keywords reactive arthritis, sexually acquired reactive arthritis, SARA, reiters, spondyloarthropathy, infectious arthritis. The complete Cochrane library and National Institute for Health and Clinical Excellence was hand-searched in October 2007 for relevant documents. Additional papers referenced by articles identified by the search strategy were also reviewed.

NUMBER OF SOURCE DOCUMENTS

Not stated

METHODS USED TO ASSESS THE QUALITY AND STRENGTH OF THE EVIDENCE

Weighting According to a Rating Scheme (Scheme Given)

RATING SCHEME FOR THE STRENGTH OF THE EVIDENCE

Levels of Evidence:

Level	Type of Evidence
Ia	Evidence obtained from meta-analysis of randomised controlled trials
Ib	Evidence obtained from at least one randomised controlled trial
IIa	Evidence obtained from at least one well designed controlled study without randomisation
IIb	Evidence obtained from at least one other type of well designed quasi-experimental study
III	Evidence obtained from well designed non-experimental descriptive studies such as comparative studies, correlation studies, and case control studies
IV	Evidence obtained from expert committee reports or opinions and/or clinical experience of respected authorities

METHODS USED TO ANALYZE THE EVIDENCE

Systematic Review

DESCRIPTION OF THE METHODS USED TO ANALYZE THE EVIDENCE

Not stated

METHODS USED TO FORMULATE THE RECOMMENDATIONS

Expert Consensus

DESCRIPTION OF METHODS USED TO FORMULATE THE RECOMMENDATIONS

This guideline has been produced by medical specialists from relevant discipline with input from specialist health advisors/nurses and a pharmacist.

RATING SCHEME FOR THE STRENGTH OF THE RECOMMENDATIONS

Grades of Recommendation

Grade	Recommendation
A (Evidence levels Ia, Ib)	Requires at least one randomised controlled trial as part of the body of literature of overall good quality and consistency addressing the specific recommendation
B (Evidence levels IIa, IIb, III)	Requires availability of well conducted clinical studies but no randomised clinical trials on the topic of recommendation.
C (Evidence level IV)	Requires evidence from expert committee reports or opinions and/or clinical experience of respected authorities. Indicates absence of directly applicable studies of good quality.

COST ANALYSIS

A formal cost analysis was not performed and published cost analyses were not reviewed.

METHOD OF GUIDELINE VALIDATION

Clinical Validation-Pilot Testing
External Peer Review
Internal Peer Review

DESCRIPTION OF METHOD OF GUIDELINE VALIDATION

The guideline was pretest piloted amongst a selection of intended end-users, formally and independently assessed by the Clinical Effectiveness Group (CEG). Prior to publication the final draft of the guideline was placed on the British Association of Sexual Health and HIV (BASHH) website, and circulated through the BASHH regional network. After a period of three months any comments received were reviewed by the guideline authors, and acted on appropriately, before final authorisation by the CEG was given and publication was undertaken.

RECOMMENDATIONS

MAJOR RECOMMENDATIONS

Levels of evidence (I-IV) and grades of recommendation (A-C) are defined at the end of the "Major Recommendations" field.

What Is New in the Guideline Since the 2001 Publication

Aetiology

- Rising incidence of spondyloarthropathies, including reactive arthritis (ReA), seen in association with human immunodeficiency virus (HIV) in sub-Saharan Africa but not in Caucasian populations.

Diagnosis

- Look for rectal gonococcal or chlamydial infection, if indicated by the sexual history.

Management

- Standard course antibiotic therapy should be used for any sexually transmitted infections (STIs) identified. The role of longer course and combination antimicrobial therapy for sexually acquired reactive arthritis (SARA) remains unclear and there are no recommendations for its use.
- All individuals should be assessed and those at high risk of upper gastrointestinal complications should be offered a cyclo-oxygenase (COX) 2 selective drug, or a non-selective non-steroidal anti inflammatory drug (NSAID) combined with a proton pump inhibitor (PPI).
- COX 2 selective drugs, used long-term, have been linked with increased cardiovascular risk and this may extend to all NSAIDs. Hence, treatment should be given for the shortest time period possible, at the lowest effective dose, and avoided or modified in at-risk patients.
- Biological agents (tumour necrosis factor [TNF] alpha blockers) are highly effective in the treatment of other spondyloarthropathies but their therapeutic role in SARA is not established. There are also concerns that they may reactivate the infective trigger.
- Updated information on treatment in pregnancy and breastfeeding.

Diagnosis

The diagnosis of sexually acquired reactive arthritis (SARA) involves three components.

- Recognition of the typical clinical features of spondyloarthropathy.
- Demonstration of evidence of genitourinary infection by the identification of:
    - Urethritis in men. Urethral discharge, dysuria and/or epididymo-orchitis may be present. Asymptomatic cases with *Chlamydia trachomatis* (*C. trachomatis*) are relatively common, occurring in up to 50% of men. Microscopic confirmation is by a Gram stained urethral smear demonstrating $\geq$5 polymorphonuclear leucocytes (PMNLs) per high power (x1000) microscopic field (averaged over five fields with the greatest concentration of PMNLs), and/or $\geq$10 PMNLs per high power (x1000) microscopic field on a Gram stained preparation from a centrifuged sample of a first void urine (averaged over five fields with the greatest concentration of PMNLs).

    - Muco-purulent cervicitis in women. Post coital or intermenstrual bleeding, dysuria, purulent vaginal discharge, a purulent or muco-purulent endocervical exudate, with or without easily induced cervical bleeding, and/or lower abdominal/pelvic pain may be present. However, cervical infection with *C. trachomatis* is frequently asymptomatic, occurring in about 70% of women.
    - Rectal infection in men and women. This may present with anal discharge and/or anorectal discomfort due to proctitis but most infections are asymptomatic.
    - The identification of genital pathogens, particularly *C. trachomatis* or *Neisseria gonorrhoeae* (*N. gonorrhoeae*). Full screening for sexually transmitted infections (STIs) is essential from sites, as indicated by the sexual history.
    - Please refer to the related UK national guidelines (see the National Guideline Clearinghouse [NGC] summaries Non-gonococcal Urethritis, *Chlamydia trachomatis* Infection, Gonorrhea, and Sexually Transmitted Infections: UK National Screening and Testing Guidelines [BASHH]).
- Investigation of specificity and activity of arthritis

Management

General Advice

The principles of management are governed by the expectation that SARA is a self-limiting disease in the majority of patients.

Patients should be advised to avoid unprotected sexual intercourse (including oral sex) until they and their partner(s) have completed treatment and follow-up for any genital infection identified.

Patients should be given a detailed explanation of their condition with particular emphasis on the long-term implications for the health of themselves and their partner(s).

This should be reinforced by giving them clear and accurate written information.

Further Investigation

The following investigations are essential, often useful or sometimes useful. Genito-urinary medicine (GUM) specialists are advised to liaise with and/or refer to other specialists including rheumatologists, ophthalmologists and dermatologists for all patients with significant involvement of extra-genital systems. It is advised that all patients with SARA be referred to an ophthalmologist, if possible, for slit lamp assessment. Essential investigations should be performed by GUM specialists whilst other investigations are suggested following appropriate referral.

Essential

- Full screening for STIs, including HIV

- Acute phase response such as, erythrocyte sedimentation rate (ESR), C-reactive protein (CRP), or plasma viscosity (PLV)
- Full blood count (FBC)
- Urinalysis

Investigations Which Are Often Useful

- Liver and kidney function tests
- Human leukocyte antigen B27 (HLA-B27)
- X-rays of affected joints and sacroiliac joints
- Electrocardiogram
- Echocardiogram
- Ophthalmic evaluation including slit lamp assessment

Investigations Which Are Sometimes Useful

- Blood cultures
- Stool culture (if enteritic ReA is suspected)
- Serology specific for *C. trachomatis*
- Ultrasonography of affected joints or entheses
- Magnetic resonance imaging of sacroiliac joints
- Synovial fluid analysis for cell count, Gram stain, crystals, culture
- Synovial biopsy
- Exclusion tests for other diseases with rheumatological features, for example, rheumatoid factor (rheumatoid arthritis), autoantibodies (systemic lupus erythematosus), plasma urate (gout), chest X-ray, and serum angiotensin-converting enzyme (ACE) level (sarcoidosis)

Treatment

Treatment is directed at several distinct elements of the condition. It is advisable that advice/assessment is obtained from relevant specialists as indicated above.

Constitutional Symptoms

- Rest
- NSAIDs

Genital Infection

Antimicrobial therapy for any genital infection identified should be as in uncomplicated infection. Please refer to the relevant UK national infection guidelines (BASHH). Whether short course antibiotic treatment of the acute genital infection influences the non-genital aspects of SARA is controversial, with the probability being that it does not once the arthritis is manifest (**Ib**, **A**).

Arthritis

First Line Therapy

- Rest with the restriction of physical activity, especially weight bearing activity where leg joints are involved. Balance with the use of physiotherapy to prevent muscle wasting. Physiotherapy and exercise are particularly important where there is axial involvement. (**IV, C**)
- Physical therapy with the use of cold pads to alleviate joint pain and oedema. (**IV, C**)
- NSAIDs are well established as efficacious agents in many inflammatory arthritides and form the mainstay of therapeutic management. It is important that they are used regularly to achieve the maximum anti-inflammatory effect. There is no definite drug of choice and the individual response varies between individuals. (**IIb, B**)

  NSAIDs have significant gastrointestinal, renal and cardiovascular side effects. All individuals should be assessed and a COX 2 selective drug should be used for those at high risk of upper gastrointestinal complications, such as gastrointestinal bleeding. Adding gastroprotective agents, such as misoprostol, histamine-2 blockers and a PPI, to nonselective NSAIDs can also reduce the gastrointestinal risks. COX-2 selective drugs, used long-term have been linked with increased cardiovascular risk and this may extend to all NSAIDs. Therefore, treatment should be given for the shortest time period possible and avoided or modified in at-risk patients. (**1a, A**)

- Intra-articular corticosteroid injections, especially valuable for single troublesome joints. They may also be used for inflamed sacroiliac joints. Proven value in other inflammatory arthritides but there are no randomised placebo-controlled trials (RPCTs) of its use in SARA. (**IV, C**)

Second Line Therapy (moderate/severe arthritis/failure of first line)

As above plus:

- Systemic corticosteroids. If used, consideration should be given to anti-osteoporosis prophylaxis. (**1a, A**) Corticosteroids are valuable where severe symptoms arise from several joints, often in the presence of constitutional illness, either as a short course of oral prednisolone 10-30 mg daily or as a single intramuscular dose of depot methyl prednisolone 80-120 mg. In rheumatoid arthritis it has been shown to suppress inflammation but there are no RPCTs of its use in SARA. (**IV, C**)
- Sulphasalazine. Indicated where disabling symptoms persist for 3 or more months, or evidence of erosive joint damage is present. Sulphasalazine reduces the severity and duration of peripheral joint synovitis but probably does not influence ultimate recovery. There may also be some benefits in early sacroiliitis but not in established ankylosing spondylitis. High doses, 3 g daily, are associated with significant toxicity, especially gastrointestinal, which may necessitate cessation of treatment, whereas 2 g daily appears equally effective and better tolerated (**Ib, A**)
- Methotrexate. Indicated where disabling symptoms persist for 3 or more months, or evidence of erosive joint damage is present. Doses range from 7.5-15 mg orally as a single weekly dose. Oral folic acid should be given, usually as a single 5 mg dose weekly, with or on the day after the methotrexate dose. Methotrexate is favoured by many physicians because of the ease of weekly oral administration and the favourable responses seen in

rheumatoid disease and psoriatic arthritis. There are no published RPCTs of its use in SARA. (**IV, C**)

- Azathioprine. Indicated where disabling symptoms persist for 3 or more months, or evidence of erosive joint damage is present. Doses of 1-4 mg/kg body weight per day may be used (**III, B**).
- Gold salts and D-penicillamine. These drugs are occasionally used when persistent polyarthritis is present. No RPCTs have been published concerning their use in SARA. (**IV, C**)
- Biological agents. TNF alpha blockers, such as infliximab, etanercept and adalimumab, are highly effective in the treatment of rheumatoid arthritis, ankylosing spondylitis, psoriatic arthritis, and other spondyloarthropathies.

There are side effects with TNF alpha blockers including infusion reactions; an increased risk of infection, including tuberculosis; development of autoantibodies; systemic lupus erythematosus and vasculitis; demyelinating disease; and worsening congestive cardiac failure. It is not known whether there is a long-term increased risk of malignancy in patients with spondyloarthropathies.

Experience of the use of biological agents in the treatment of ReA, including SARA, is essentially anecdotal. It is possible that they may re-activate the infective trigger in patients with ReA. The place of such therapy in SARA is therefore not yet established. (**IV, C**)

- Antibiotics
    - Short course antibiotic therapy used for the treatment of concomitant uro-genital infection may reduce the risk of recurrent arthritis developing in individuals with a history of ReA but otherwise there is little evidence of benefit in respect of the duration, severity or course of the arthritis. (**Ib, A**).
    - Longer course antibiotic therapy has been considered. However, many studies have had small numbers of individuals with SARA, and the main antibiotic therapy has commenced after the arthritis has established. Antibiotics may also have anticollagenolytic properties. Conflicting results have been obtained, with one study identifying that lymecycline given for 3 months reduced the duration of arthritis in *C. trachomatis* triggered SARA. However, no significant effect was seen in placebo-controlled studies of three month courses of ciprofloxacin, azithromycin, or doxycycline, a twelve month course of ciprofloxacin, nor in placebo-controlled comparative studies of short course versus 4 months of doxycycline therapy.

      Combination antimicrobial therapy for a three month period has been investigated with significant improvements in arthritis and back pain being reported in those treated with doxycycline and rifampicin compared with doxycycline alone. Others have shown no benefit in a combined placebo controlled study with ofloxacin and roxithromycin.

      The effect of longer term therapy on the late prognosis of arthritis has been evaluated. One study has shown that 8% of those treated with a three month course of ciprofloxacin, compared to 41% in a placebo group, had developed chronic disease when assessed 47 years later.

However, this has not been confirmed by a ten year follow-up study of patients treated with lymecycline, despite the benefits seen initially.

- The role of combination or longer term antimicrobial therapy in SARA, is not yet established and further studies are needed. A Cochrane systematic review is currently underway to evaluate this contentious area. (**Ib, A**)

- Medical synovectomy using yttrium-90, osmic acid, samarium-153, or rhenium-286. All have been shown to have short term benefit in chronic mono-articular synovitis. Advantages over intra-articular corticosteroid injections have not been confirmed (**Ib, A**)
- Surgery. Exceptionally, surgical treatment including synovectomy and arthroplasty, is valuable. For synovectomy the concomitant use of azithromycin for three months has been suggested but the study describing this did not include a placebo arm so a definitive benefit could not be confirmed.

Enthesitis

- Rest (**IV, C**)
- Physiotherapy and ultrasound
- Orthototics with insoles, cushioning and heel supports (**IV, C**)
- NSAIDs, usually oral but occasionally may be useful topically (**IV, C**)
- Local corticosteroid injection (**IV, C**)
- Radiotherapy for persistent disabling heel pain, exceptionally
- Surgery, exceptionally
- TNF blockers appear to improve enthesitis associated with other spondyloarthropathies but there are no RPCTs of its use in SARA (**IV, C**)

Mucous Membrane and Skin Lesions

- No treatment for mild lesions
- Keratinolytic agents, such as topical salicylic acid ointments or corticosteroid preparations, in mild to moderate cases. Low potency topical corticosteroids are the best option for mucosal sites. (**IV, C**)
- Vitamin D3 analogues in mild to moderate cases. Calcitriol ointment is better tolerated in flexural sites than calcipotriol. The ointment preparation of calcipotriol has been withdrawn and is no longer available but the cream formulation can still be obtained. (**IV, C**)
- Methotrexate, if severe lesions (**IV, C**)
- Retinoids, such as acitretin, if severe lesions (**IV, C**)
- TNF blockers, such as infliximab and etanercept, have been effective for psoriatic skin lesions but no RCPTs have been performed in SARA. (**IV, C**)

Eye Lesions

- Should be managed with ophthalmological advice
- Slit lamp assessment is essential to diagnose uveitis, which if untreated may result in irreversible visual loss. Therapy for uveitis consists of corticosteroid eye drops or oral corticosteroids, and mydriatics, although posterior uveitis usually requires more aggressive treatment. Limited information is available on the use of TNF blockers for uveitis, although they have been reported to

reduce the frequency of episodes of uveitis when treating ankylosing spondylitis. Their therapeutic role is not yet known. (**IV, C**)

Post-inflammatory Pain and Fatigue

- Explanation and patience
- Low dose tricyclic drugs, such as amitriptyline 10-25 mg at night, if severe symptoms

Prophylaxis

- In addition to the advice to avoid sexual intercourse (including oral sex) until they and their partner(s) have completed treatment and follow-up for any genital infection identified, patients should be advised to avoid potentially "triggering infections" in the future, either uro-genital or enteric. Hence, safer sexual practice should be discussed and the importance of food hygiene stressed.

Pregnancy and Breastfeeding

- All medications should be avoided during pregnancy and breastfeeding where possible.
- Antibiotics. Please refer to the relevant UK national infection guidelines (BASHH).
- NSAIDs may potentially produce sub-fertility as a result of the luteinised unruptured ovarian follicle syndrome. NSAIDs, used regularly during pregnancy, may produce premature closure of the foetal ductus arteriosus, oligohydramnios, delayed onset, and increased duration of labour. Advice regarding breastfeeding depends on the specific NSAID being used.
- Corticosteroids are low risk but with prolonged use in pregnancy there is a risk of intrauterine growth restriction and foetal adrenal suppression. Systemic effects in the breastfeeding infant are unlikely if the maternal dose of prednisolone is less than 40 mg daily. Adrenal function should be monitored in the breastfeeding infant if higher doses are used.
- Sulphasalazine appears to have only small theoretical risks but should be used with caution in pregnancy and breastfeeding. It may induce oligospermia in men.
- Azathioprine appears to be safe during pregnancy but should not be initiated during pregnancy, if possible. It should be discontinued if breastfeeding.
- Methotrexate and retinoids are teratogenic and contraindicated during pregnancy and breastfeeding. Both men and women using methotrexate should avoid conception during drug taking and for at least 3 months after. Women using retinoids, such as acitretin, should be advised to use effective contraception for at least one month before treatment, during treatment, and for at least 2 years after stopping treatment (oral progestogen-only contraceptives are not considered effective).
- Gold salts should be avoided during pregnancy and breastfeeding. With the oral preparation effective conception should be used during and for at least 6 months after treatment.
- TNF blockers should be avoided during pregnancy. Women should be advised to use adequate contraception during treatment and with adalimumab and infliximab this should be continued for 5 and 6 months, respectively, after the

last dose. Breastfeeding should be avoided for up to 6 months after the last dose.

Sexual Partners

- Partner notification, treatment, and the contact tracing period are dependent on the genital infection identified. Please refer to the relevant UK national infection guidelines. (BASHH).

Follow-up

- GUM follow-up is dependent on the genital infection identified. Please refer to the relevant UK national infection guidelines (BASHH).
- Extra-genital manifestations should be followed up under the direction of the relevant specialist.

Definitions:

Levels of Evidence

Level	Type of Evidence
Ia	Evidence obtained from meta-analysis of randomised controlled trials
Ib	Evidence obtained from at least one randomised controlled trial
IIa	Evidence obtained from at least one well designed controlled study without randomisation
IIb	Evidence obtained from at least one other type of well designed quasi-experimental study
III	Evidence obtained from well designed non-experimental descriptive studies such as comparative studies, correlation studies, and case control studies
IV	Evidence obtained from expert committee reports or opinions and/or clinical experience of respected authorities

Grades of Recommendation

Grade	Recommendation
A (Evidence levels Ia, Ib)	Requires at least one randomised controlled trial as part of the body of literature of overall good quality and consistency addressing the specific recommendation
B (Evidence levels IIa, IIb, III)	Requires availability of well conducted clinical studies but no randomised clinical trials on the topic of recommendation.
C (Evidence level IV)	Requires evidence from expert committee reports or opinions and/or clinical experience of respected authorities. Indicates absence of directly applicable studies of good quality.

CLINICAL ALGORITHM(S)

None provided

EVIDENCE SUPPORTING THE RECOMMENDATIONS

TYPE OF EVIDENCE SUPPORTING THE RECOMMENDATIONS

The type of supporting evidence is graded and identified for select recommendations (see the "Major Recommendations" field).

BENEFITS/HARMS OF IMPLEMENTING THE GUIDELINE RECOMMENDATIONS

POTENTIAL BENEFITS

Appropriate diagnosis, management, and treatment of patients with sexually acquired reactive arthritis (SARA)

POTENTIAL HARMS

- *Non-steroidal anti-inflammatory drugs (NSAIDs)*: NSAIDs have significant gastrointestinal, renal and cardiovascular side effects.
- *Systemic corticosteroids*: If used, consideration should be given to anti-osteoporosis prophylaxis. During pregnancy or breastfeeding, corticosteroids are low risk, but if the daily use is 10 mg or more, foetal/infant adrenal suppression may occur.
- *Sulphasalazine*: High doses, 3 g daily, are associated with significant toxicity, especially gastrointestinal, which may necessitate cessation of treatment, whereas 2 g daily appears equally effective and better tolerated. Sulphasalazine may induce oligospermia in men.
- *Tumour necrosis factor (TNF) alpha blocker*: There are side effects with TNF alpha blockers including infusion reactions; an increased risk of infection, including tuberculosis; development of autoantibodies; systemic lupus erythematosus and vasculitis; demyelinating disease; and worsening congestive cardiac failure. It is not known whether there is a long-term increased risk of malignancy in patients with spondyloarthropathies.

Subgroups Most Likely to be Harmed

Pregnant women, fetuses, and infants. Refer to the section "Pregnancy and Breastfeeding" in the "Major Recommendations" field.

CONTRAINDICATIONS

CONTRAINDICATIONS

Methotrexate and retinoids are teratogenic and contraindicated during pregnancy and breastfeeding. Both men and women using methotrexate should avoid conception during drug taking and for at least 6 months after. Women using

retinoids should be advised to use effective contraception for at least 1 month before treatment, during treatment, and for at least 2 years after stopping treatment.

QUALIFYING STATEMENTS

QUALIFYING STATEMENTS

- The recommendations in this guideline may not be appropriate for use in all clinical situations. Decisions to follow these recommendations must be based on the professional judgement of the clinician and consideration of individual patient circumstances and available resources.
- All possible care has been undertaken to ensure the publication of the correct dosage of medication and route of administration. However, it remains the responsibility of the prescribing physician to ensure the accuracy and appropriateness of the medication they prescribe.

IMPLEMENTATION OF THE GUIDELINE

DESCRIPTION OF IMPLEMENTATION STRATEGY

An implementation strategy was not provided.

IMPLEMENTATION TOOLS

Audit Criteria/Indicators

For information about availability, see the "Availability of Companion Documents" and "Patient Resources" fields below.

INSTITUTE OF MEDICINE (IOM) NATIONAL HEALTHCARE QUALITY REPORT CATEGORIES

IOM CARE NEED

Getting Better

IOM DOMAIN

Effectiveness
Patient-centeredness

IDENTIFYING INFORMATION AND AVAILABILITY

BIBLIOGRAPHIC SOURCE(S)

Clinical Effectiveness Group (CEG). United Kingdom national guideline on the management of sexually acquired reactive arthritis 2008. London (UK): British Association for Sexual Health and HIV (BASHH); 2008. 31 p. [121 references]

ADAPTATION

Not applicable: The guideline was not adapted from another source.

DATE RELEASED

1999 Aug (revised 2008)

GUIDELINE DEVELOPER(S)

British Association for Sexual Health and HIV - Medical Specialty Society

SOURCE(S) OF FUNDING

Not stated

GUIDELINE COMMITTEE

Clinical Effectiveness Group (CEG)

COMPOSITION OF GROUP THAT AUTHORED THE GUIDELINE

Authors: Elizabeth Carlin, Sherwood Forest Hospitals NHS Foundation Trust & Nottingham University Hospitals NHS Trust; Andrew Keat, Northwick Park & St Mark's NHS Trust

Clinical Effectiveness Group (CEG) Members: Keith Radcliffe (Chairman); Imtyaz Ahmed-Jushuf; David Daniels; Mark FitzGerald; Gill McCarthy; Neil Lazaro; Guy Rooney

FINANCIAL DISCLOSURES/CONFLICTS OF INTEREST

The authors have no conflicts of interest.

GUIDELINE STATUS

This is the current release of the guideline.

This guideline updates a previous version: Association for Genitourinary Medicine (AGUM), Medical Society for the Study of Venereal Disease (MSSVD). 2002 national guideline on the management of sexually acquired reactive arthritis. London: Association for Genitourinary Medicine (AGUM), Medical Society for the Study of Venereal Disease (MSSVD); 2002. Various p.

GUIDELINE AVAILABILITY

Electronic copies: Available in Portable Document Format (PDF) from the British Association for Sexual Health and HIV Web site.

AVAILABILITY OF COMPANION DOCUMENTS

The following is available:

- Specifications for the development of UK guidelines on the management of sexually transmitted infections (STIs) and closely related conditions 2005. London (UK): British Association of Sexual Health and HIV (BASHH); 2005. 14 p. Electronic copies: Available in Portable Document Format (PDF) from the British Association for Sexual Health and HIV Web site.

Additionally, auditable outcome measures can be found in the original guideline document.

PATIENT RESOURCES

None available

NGC STATUS

This summary was completed by ECRI on December 8, 2000. The information was verified by the guideline developer on January 12, 2001. This summary was updated on August 5, 2002. This summary was updated on May 3, 2005 following the withdrawal of Bextra (valdecoxib) from the market and the release of heightened warnings for Celebrex (celecoxib) and other nonselective nonsteroidal anti-inflammatory drugs (NSAIDs). This summary was updated by ECRI on June 16, 2005, following the U.S. Food and Drug Administration advisory on COX-2 selective and non-selective non-steroidal anti-inflammatory drugs (NSAIDs). This summary was updated by ECRI Institute on November 2, 2007, following the U.S. Food and Drug Administration advisory on Antidepressant drugs. This NGC summary was updated by ECRI Institute on May 15, 2009.

COPYRIGHT STATEMENT

DISCLAIMER

NGC DISCLAIMER

or private organizations, other government agencies, health care organizations or plans, and similar entities.

Guidelines represented on the NGC Web site are submitted by guideline developers, and are screened solely to determine that they meet the NGC Inclusion Criteria which may be found at http://www.guideline.gov/about/inclusion.aspx .

NGC, AHRQ, and its contractor ECRI Institute make no warranties concerning the content or clinical efficacy or effectiveness of the clinical practice guidelines and related materials represented on this site. Moreover, the views and opinions of developers or authors of guidelines represented on this site do not necessarily state or reflect those of NGC, AHRQ, or its contractor ECRI Institute, and inclusion or hosting of guidelines in NGC may not be used for advertising or commercial endorsement purposes.

Readers with questions regarding guideline content are directed to contact the guideline developer.

Copyright/Permission Requests

Date Modified: 7/27/2009